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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/274,152	03/22/1999	JEFFREY S. MCVEIGH	42390.P7110	8051

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MICHAEL A. PROKSCH  
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN  
12400 WILSHIRE BOULEVARD  
SEVENTH FLOOR  
LOS ANGELES, CA 900251026

EXAMINER

VO, TUNG T

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 05/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/274,152

Applicant(s)

MCVEIGH ET AL.

Examiner

Tung Vo

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi et al. (US 5,539,466) in view of Ju (US 5,801,778) as set forth in the previous Office Action dated 09/20/2005.

### *Response to Arguments*

3. Applicant's arguments filed 02/27/2006 have been fully considered but they are not persuasive.

The applicant argued that Igarashi lacks any suggestion of using unidirectional prediction to predict contents of a frame that is defined as a bi-directionally predicted frame, and Ju does not disclose "utilizing even-parity field prediction to uni-directionally predict content of each of a plurality of fields predicted frame, and no combination of Igarashi and Ju teaches or suggests the claimed invention, pages 10 and 11 of the remarks.

The examiner respectfully disagrees with the applicant. It is submitted that Igarashi teaches a motion estimation circuit (20, 21 and 22 of fig. 1) to receive a stream of data comprising at least an anchor frame and a predicted frame, and to utilize even-parity field

Art Unit: 2621

prediction (odd parity fields or even parity fields) to unidirectional predict (col. 10, lines 58-67, e.g. a uni-directional prediction inter-frame) content of each of a plurality of fields (each frame contains many fields that include odd fields and even fields) of the predicted frame from corresponding fields of only a temporally closest anchor frame in the stream of data (figs. 7-12, e.g. predicting a frame using unidirectional predict content each of a plurality of fields (odd fields or even fields)).

Ju teaches B frames having macroblocks which are (a) intracoded, (b) unidirectional forward predictive coded, (c) unidirectional backward predictive coded using temporal encoding relative to a subsequent reference frame, or (d) bidirectionally predictive coded using temporal encoding relative to both previous and subsequent reference frames (col. 2, lines 20-25), and in the step (135 of FIG. 3) indicates the parities of field predictions that are generally determined after completion of the ME2 search, and an even parity field prediction using unidirectional forward predictive (content) and/or unidirectional backward predictive (content) of odd or even fields of the predicted frame. Since Ju reference teaches the unidirectional prediction above, the claimed features are unpatentable over Ju and the combination of Igarashi and Ju.

The applicant further argued that Igarashi and Ju do not disclose a storage medium having instructions to implement motion estimation, page 12 and 13 of the remarks.

The examiner respectfully disagrees with the applicant. It is submitted that Ju teaches the motion estimator may be implemented as a computer, central processing unit, controller, microprocessor, application-specific integrated circuit (ASIC) or other digital data processor or portion thereof programmed to provide the operations described in conjunction with FIG. 3 (col. 16, line 66-col. 17, line 10), wherein the computer or central processing unit would obviously have

Art Unit: 2621

a storage medium that contains instructions to implement motion estimation (24 of fig. 2 and fig.

3). In view of the discussion above, the claimed features are unpatentable over Ju and the combination of Ju and Igarashi.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

Art Unit: 2621

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tung Vo  
Primary Examiner  
Art Unit 2621